AMENDMENTS TO THE CLAIMS

1. (currently amended) An antigenic composition comprising a heterologous antigen linked to the amino acid sequence set forth in SEQ ID NO:38, wherein said heterologous antigen is 50 or fewer amino acids in length and is inserted at a position chosen from amino acid residues 44, 71, 72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85, 92, N-terminal or C-terminal of SEQ ID NO:38, and wherein said heterologous antigen and said amino acid sequence assemble as a hybrid particle.

2. (currently amended) The composition of Claim 1, wherein said ~~heterologous antigen is inserted at a position within a loop region comprising residues 76 to 82 of SEQ ID NO:38~~ position is chosen from said N-terminal or said C-terminal.

3. (currently amended) The composition of ~~Claim 2,~~ Claim 1, wherein said position ~~within said loop region~~ is chosen from said amino acid residues 77, 78, 81, or 82.

4-7. (canceled)

8. (currently amended) The composition of Claim 1, wherein said heterologous antigen is inserted at a position ~~within a loop region comprising residues 76 to 82 of SEQ ID NO:38,~~ chosen from said amino acid residues 44, 71, 72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85 or 92, and in a position ~~outside said loop region~~ chosen from said N-terminal or said C-terminal.

9. (canceled)

10. (original) The composition of Claim 1, wherein said heterologous antigen comprises at least one B cell epitope.

11. (original) The composition of Claim 1, wherein said heterologous antigen comprises at least one T helper cell epitope.

12. (previously presented) The composition of Claim 1, wherein said amino acid sequence further comprises an artificial C-terminus of from 1 to 100 amino acids at the carboxy end of residue I^{149}.

13. (previously presented) The composition of Claim 12, wherein said 1 to 100 amino acids is chosen from K^{150}, A^{150}, $R^{150}R^{151}C^{152}$, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, or SEQ ID NO:20.

14. (withdrawn) The composition of Claim 12, wherein said 1 to 100 amino acids is chosen from SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.

15. (withdrawn) The composition of Claim 12, wherein said 1 to 100 amino acids is chosen from SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID:53, SEQ ID NO:54, SEQ ID NO:55, or SEQ ID NO:56.

16. (original) The composition of Claim 1, wherein said amino acid sequence further comprises at least one immune enhancer sequence.

17. (original) The composition of Claim 1, further comprising woodchuck hepatitis virus core antigen chosen from wild type woodchuck hepatitis virus core antigen and modified woodchuck hepatitis virus core antigen lacking a heterologous antigen.

18. (currently amended) A nucleic acid sequence encoding an antigenic hybrid woodchuck hepatitis virus core antigen, comprising a heterologous antigen inserted within the amino acid sequence set forth in SEQ ID NO:38, <u>wherein said heterologous antigen is 50 or fewer amino acids in length and is inserted at a position chosen from amino acid residues 44, 71,</u>

72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85, 92, N-terminal or C-terminal of SEQ ID NO:38, and wherein said heterologous antigen and said amino acid sequence assemble as a hybrid particle.

19. (original) An expression vector comprising the nucleic acid sequence of Claim 18.

20-35. (canceled)

36. (currently amended) A vaccine comprising ~~a heterologous antigen linked to the amino acid sequence set forth in SEQ ID NO:38~~ the antigenic composition of Claim 1.

37. (previously presented) The vaccine of Claim 36, formulated for human administration.

38. (currently amended) The composition of Claim 1, wherein said heterologous antigen further comprises ~~addition of at least one acidic amino acid~~ flanking glutamic acid residues.

39. (currently amended) The composition of Claim 1, wherein said heterologous antigen further comprises ~~a substitution of at least one basic amino acid with at least one acidic amino acid~~ flanking aspartic acid residues.

40-47. (canceled)

48. (new) The composition of Claim 1, wherein said position is amino acid residue 44.

49. (new) The composition of Claim 1, wherein said position is amino acid residue 71.

50. (new) The composition of Claim 1, wherein said position is amino acid residue 72.

51. (new) The composition of Claim 1, wherein said position is amino acid residue 73.

52. (new) The composition of Claim 1, wherein said position is amino acid residue 74.

53. (new) The composition of Claim 1, wherein said position is amino acid residue 75.

54. (new) The composition of Claim 1, wherein said position is amino acid residue 76.

55. (new) The composition of Claim 1, wherein said position is amino acid residue 83.

56. (new) The composition of Claim 1, wherein said position is amino acid residue 84.

57. (new) The composition of Claim 1, wherein said position is amino acid residue 85.

58. (new) The composition of Claim 1, wherein said position is amino acid residue 92.